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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/813,163

03/31/2004

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A8698

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08/30/2006

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EXAMINER

SAYADIAN, HRAYR

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/813,163	Applicant(s) LIU ET AL.	
	Examiner Hrayr A. Sayadian	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
 4a) Of the above claim(s) 1,5,6,10,11,17-22 and 25-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4,7-9,12-16,23,24 and 33-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/30/04 & 9/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Restriction Requirement

1. This application and pending claims 1-36 are directed to the following patentably distinct species:

2. This application and pending claims 1-36 are directed to the following patentably distinct species:

A. An embodiment described with respect to FIG. 1 (the First Embodiment). The mutually exclusive characteristics for Species A is/are described in the first sentence of [0069]. Specifically, in the first embodiment the pulses are stretched after being amplified (see also the amplifier, which is non-linear, in FIG. 1 before the stretcher).

B. An embodiment described with respect to FIG. 11 (the second embodiment). The mutually exclusive characteristics for Species B is/are described in the first sentence of [0069]. Specifically, in the second embodiment the pulses are stretched before being amplified (see also the pre-amplifier in FIG. 11 after the stretcher).

3. In a reply, USPTO stamped 05/10/2006, Applicants elected Species B, without traverse. In this reply, Applicants identified claim 2-4, 6-9, 12-22, and 25 as readable on the elected Species. Applicants also submitted that claims 23, 24, and 26-36 are generic to both Species.

Claims 6, 21, and 22, however are not directed to the second Embodiment because they recite non-linear amplifier, a feature belonging to the first Embodiment. Accordingly, claims 6, 21, and 22 are also deemed not elected and therefore withdrawn.

Additionally, claims 17-20 and 25 are also not directed to the second embodiment because they recite removing ASE by selecting the length of an amplifier stage. It is noted that the detailed description of this application describes the removing of the ASE being specifically achieved using a non-linear amplifier (see, for example paragraphs [0060] – [0062]; see, specifically, paragraph [0062]). It is also noted that claim 5 was identified by Applicants as

reading on the first embodiment. Accordingly, claims 6, 21, and 22 are also deemed not elected and therefore withdrawn.

4. The multiple dependent claims [hereinafter "MDC"] are treated as provided in M.P.E.P. 608.01(n)Part.I.C. Accordingly, the embodiments of the MDC depending from claim 1 are withdrawn from consideration.

5. Additionally, in a communication dated 06/12/2006, Examiner explained to Mr. Turner, Applicants' attorney, that the remaining claims are further restrictable because of subcombination nature.

Specifically, claims 26-32 recite temperature cloning by way of a monitor fiber identical to the gain fiber and that these claims do not recite the (stretch ... amplify ... etc) sequence recited in other claims, and that the other claims do not recite any means for temperature cloning.

In response, on 6/12/2006, Mr. Turner agreed that claims 26-32 are also restricted and not elected.

For the record, the following explanation details the bases for restricting claims 26-32 from the elected embodiment (embodiment 2):

Embodiment 2 (as reflected in claims 2, 3, and 13, and MDC 6-9, 12, and 14) and the invention claimed in claims 26-32 are related as subcombinations usable together. The subcombinations are distinct if they are not obvious variants, and if it is shown that at least one subcombination is separately usable.

In the instant case, the subcombinations are not congruent in scope because the invention of embodiment 2 is directed to specifics of amplification and beam power control classified in 372/29.01 and 359/333+, whereas invention claimed in claims 36-32 is directed to specifics of temperature control classified in 372/34. Additionally in the instant case, these subcombinations have separate utility such as power control and temperature control, respectively. See MPEP § 806.05(d). Moreover, these inventions do not appear to be obvious variations of each other.

Because the subcombinations are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper. Moreover, because the subcombinations are independent or distinct for the reasons given above, and they require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

6. The Election Requirement is maintained and is now made final.

Claim Rejections - 35 U.S.C. § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 2, 3, 7-9, and 12-14 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as the invention.

Specifically, in independent claim 2, the recitation "the signal" lacks proper antecedent basis. This indefiniteness is further exasperated by the recitation of "the signal" as part "an amplifier module receiving ..." and as part of "a linear per-amplifier" 3, 7-9, and 12-14 Claims 2-7 depend from claim 2 and therefore are similarly indefinite.

Correction is required.

Claim Rejections - 35 U.S.C. § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102, the bases for the anticipation rejections set forth in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2828

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 2-4, 7-9, 12-16, 23, 24, 33-36 is rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. PGPUB 2003/0156605 to Richardson et al. [hereinafter "Richardson"].

As to claim interpretation: The recitation "selected" and "selectively" is read to include the scope of choosing not to select, which includes the scope of not including the "tap units."

As to art rejection: Richardson discloses all of the limitations of claim 15. See, for example, the front page disclosing an oscillator 10, stretcher 128, an amplifier 68a, and a compressor 146. These modules are disclosed as connected by fiber splices. And by their very nature, these modules are subject to separate assembly and test.

With respect to claims 24, 35, and 36, Richardson discloses a down-converter 52 (disclosed as a pulse selector, which down converts the effective repetition rate of the laser system).

With respect to claims 4, 16, 33, and 34, Richardson discloses the various down converters (pulse selectors) 132a and 132b that are AOM. See, for example, paragraphs [0136], [00185] and [0187]. The diffractive nature of the AOMs result in the AOMs acting as a bandwidth filter, this very nature results in spatial dispersion, and the compressor 146 effectively compensates by compressing for this spatial dispersion.

With respect to claim 23, Richardson discloses using an isolator (with at least 35 dB isolation) to isolate the oscillator and at least one of the amplifiers. See, for example paragraph [0179].

With respect to claims 2, 3, 7-9, and 12-14, as best as they are understood in light of the 112(2) rejection above, Richardson is deemed to disclose the recited features. See, for example, paragraph [0136] describing the down converter 52 as having an insertion loss of about 4dB and, therefore, being an attenuator.

CLOSURE

12. Any inquiry concerning this or any earlier communication should be directed to examiner Hrayr A. Sayadian, who may normally be reached Monday through Friday, 7:30 am-4:00 pm, on (571) 272-7779.

If attempts to reach the examiner by telephone are unsuccessful, his supervisor, Minsun O. Harvey, may be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HAS

MIN SUN O. HARVEY
PATENT EXAMINER